

Appl. No. 10/691,716
Amdt. dated August 8, 2005
Reply to Office Action of May 9, 2005

Docket No. 58009-017200

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A horizontal packaging machine for making fluid-tight packages equipped with a zip closure, the machine comprising:

at least one unit for unwinding a film of synthetic material for packaging a series of products;

at least one unit for unreeling a pair of tapes to form the zip closure;

a shaping tunnel located downstream of the film unreeling unit;

a sealing unit located downstream of the shaping tunnel;

a power-driven film feed roller designed to apply a uniform pulling force on the film which is unwound and fed into the sealing unit, wherein the power-driven film feed roller is downstream of the sealing unit, wherein the location of the power-driven film feed roller and the uniform pulling force prevents the film from being uneven while sealed and wherein the power-driven film feed roller has on its surface a series of jaws for transversely sealing and separating the packages.

Claim 2 (canceled)

Claim 3 (previously presented): A machine according to claim 1, further comprising a cutting device, located upstream of the sealing unit and designed to cut the zip tape in order to obtain portions of film without zip tape on .

Claim 4 (previously presented): A machine according to claim 1, wherein the jaws have cutting edges.

Claim 5 (currently amended): A horizontal packaging machine for making fluid-tight packages equipped with a zip closure, the machine comprising:

at least one unit for unwinding a film of synthetic material for packaging a series of products;

at least one unit for unreeling a pair of tapes to form the zip closure;

a shaping tunnel located downstream of the film unreeling unit;

a sealing unit located downstream of the shaping tunnel;

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a power-driven film feed roller designed to apply a uniform pulling force on the film which is unwound and fed into the sealing unit, wherein the power driven feed roller is downstream of the sealing unit wherein the location of the power-driven film feed roller and the uniform pulling force prevents the film from being uneven while sealed; and

a pair of opposite platforms, one on each side of the forward moving film and zip tapes, each platform being equipped with two jaws designed to make a first continuous seal along the outside of the joined edges of the film and a second seal along the inside in order to attach the zip tape to the film edges.

Claim 6 (previously presented): A machine according to claim 5, further comprising free turning guide rollers for guiding the film into the sealing unit.

Claim 7 (previously presented): A machine according to claim 5, wherein one pair of jaws feature a longitudinal groove which accommodates the zip tape while the seal is being made.

Claim 8 (previously presented): A machine according to claim 1, further comprising, close to the at least one unit for unwinding the zip tape, a pair of unwinding rollers driven by a servomotor.

Claim 9 (previously presented): A machine according to claim 1, further comprising, downstream of the power-driven film feed roller, a device for collecting and feeding out the packages.

Claim 10 (previously presented): A machine according to claim 1, further comprising two process lines placed side by side.

Claim 11 (previously presented): A horizontal packaging machine for making fluid-tight packages equipped with a zip closure, the machine comprising:

a first unreeling unit to unwind a film of synthetic material that is used for packaging a plurality of products, the film of synthetic material being fed into a shaping tunnel located downstream of the first unreeling unit;

a second unreeling unit to unwind a zip tape, the zip tape being fed into the shaping tunnel in order to seal the zip tape to the film;

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a upper platform located on the top side of the film of synthetic material and zip tape, the upper platform having an upper set of jaws,

a lower platform located on the bottom side of the film of synthetic material and zip tape, the bottom platform having a bottom set of jaws, wherein the bottom set of jaws are pressed against the upper set of jaws so as to make a first continuous longitudinal seal along the outside of the joined edges of the film and a second longitudinal seal along the inside in order to attach the zip tape to the film edges; and

a power-driven film feed roller designed to apply a uniform pulling force on the film; the power-driven film feed roller having on its outer surface sealing and cutting jaws that transversally seal and separate the packages, the sealing jaws being spaced at equal angular intervals.

Claim 12 (withdrawn): A method for to make fluid-tight packages equipped with a zip closure, comprising:

feeding a film of synthetic material mounted on a first unreeling unit into a shaping tunnel located downstream of the first unreeling unit;

feeding a zip tape mounted on a second unreeling unit into the into the shaping tunnel in order to seal the zip tape to the film;

making a first continuous longitudinal seal along the outside of the joined edges of the film by compressing pair of opposing jaws against each other while the film is in between the jaws;

making a second longitudinal seal along the inside in order to attach the zip tape to the film edges, the second longitudinal seal being made by compressing the pair of opposing jaws against each other while the film and the zip tape are in between the jaws;

pulling the film so as to create a uniform pulling force, the film being pulled by a power-driven film feed roller that has on its outer surface sealing and cutting jaws spaced at equal angular intervals;

transversally sealing the film between the packages; and

transversally separating the packages by transversally cutting the sealed film between the packages.

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Claim 13 (new): A horizontal packaging machine for making fluid-tight packages equipped with a zip closure, the machine comprising:

at least one unit for unwinding a film of synthetic material for packaging a series of products;

at least one unit for unreeling a pair of tapes to form the zip closure;

a shaping tunnel located downstream of the film unreeling unit;

a sealing unit located downstream of the shaping tunnel wherein the sealing unit includes free turning guide rollers for guiding the film into the sealing unit;

a power-driven film feed roller designed to apply a uniform pulling force on the film which is unwound and fed into the sealing unit, wherein the power-driven film feed roller is downstream of the sealing unit, and wherein the power-driven film feed roller has on its surface a series of jaws for transversely sealing and separating the packages.